A. In the Claims:

Please cancel claims 16-21 without prejudice.

Please add the following claims:

22. A $V_H$ and $V_L$ polypeptide having in combination with one another a catalytic activity isolated by the method comprising the steps of:

(a) synthesizing a $V_H$ and a $V_L$ -coding gene library containing a plurality of different $V_H$ and $V_L$ -coding DNA sequences by a method comprising the steps of:

(i) preparing a first polynucleotide containing composition, wherein at least a portion of the polynucleotides in said composition comprise a plurality of different $V_H$-coding sequences;

(ii) preparing a second polynucleotide containing composition, wherein at least a portion of the polynucleotides in said composition comprise a plurality of different $V_L$-coding sequences;

(iii) amplifying a plurality of $V_H$ and $V_L$-coding sequences in said respective polynucleotide containing compositions;

(iv) joining in operable combination, $V_H$ and $V_L$-coding sequences from said $V_H$ and $V_L$-coding gene library with expression vectors so as to be able to express a $V_H$ and $V_L$-coding sequence from each vector, whereby a diverse library is formed;

(b) selecting and isolating from said diverse library at least one expression vector capable of producing $V_H$ and $V_L$ polypeptide having in combination with one another catalytic activity;

(c) transforming a host cell with said expression vector; and

(d) isolating a $V_H$ and $V_L$ polypeptide encoded by said vector from said host cell.

23. The $V_H$ and $V_L$ polypeptide of claim 22 wherein said $V_H$ and $V_L$ coding sequences from said $V_H$ and $V_L$ coding library are joined with separate expression vectors.

24. A $V_H$ and $V_L$ polypeptide having in combination with one another a catalytic activity isolated by a method comprising the steps of:

(a) preparing a first polynucleotide containing composition, wherein a portion of the polynucleotides in said composition comprise a plurality of different $V_H$-coding sequences;

(b) preparing a second polynucleotide containing composition, wherein a portion of the polynucleotides in said composition comprise a plurality of different $V_L$-coding sequences;

(c) amplifying a plurality of $V_H$ and $V_L$-coding sequences from said first and said second polynucleotide containing compositions, respectively, by a method of amplification comprising the step of adding primers capable of hybridizing upstream and downstream from a plurality of said $V_H$ coding sequences and adding primers capable of hybridizing upstream and downstream from a plurality of said $V_L$ coding sequences, under conditions permitting hybridization to occur, whereby a plurality of different amplified $V_H$ and a plurality of different amplified $V_L$ coding sequences are produced;

(d) joining in operable combination, said amplified $V_H$ and $V_L$-coding sequences with expression vectors so as to be able to express a $V_H$ and $V_L$-coding sequence from each vector, whereby a diverse library is formed;

(e) selecting and isolating from said diverse library at least one expression vector capable of producing a $V_H$ and $V_L$ polypeptide which in combination with one another have said catalytic activity,

(f) transforming a host cell with said expression vector; and

(g) isolating a $V_H$ and $V_L$ polypeptide encoded by said vector from said host cell.

25. The $V_H$ and $V_L$ polypeptide of claim 24 wherein said amplified $V_H$ and said amplified $V_L$ coding sequences are joined with separate expression vectors.

26. A $V_H$ and $V_L$ polypeptide having in combination with one another a catalytic activity isolated by the method comprising the steps of:

(a) producing a $V_H$ and $V_L$-coding genetic library, by a method comprising the steps of:

(i) adding a first primer, wherein said first primer is capable of hybridizing to a first conserved nucleotide sequence substantially adjacent to a plurality of $V_H$-coding regions, and said coding sequences are present in a polynucleotide containing composition that comprises a plurality of different $V_H$ and $V_L$ coding sequences;

(ii) adding a second primer to said nucleotide containing composition, wherein said second primer is capable of hybridizing to a second conserved nucleotide sequence substantially adjacent to a plurality of different $V_H$-coding regions;

(iii) adding a third primer, wherein said third primer is capable of hybridizing to a third conserved nucleotide sequence substantially adjacent to a plurality of $V_L$-coding regions;

(iv) adding a fourth primer to said polynucleotide containing composition, wherein said fourth primer is capable of hybridizing to a fourth conserved nucleotide sequence substantially adjacent to a plurality $V_L$-coding regions;

(v) amplifying said $V_H$ coding sequences and said $V_L$ coding sequences;

(b) joining in operable combination said amplified $V_H$ and $V_L$-coding sequences with expression vectors so as to be able to express $V_H$ and $V_L$-coding sequence from said vectors, whereby a diverse library is formed;

(c) selecting and isolating from said diverse library expression vector capable of producing $V_H$ or $V_L$ polypeptides which in combination have said catalytic activity;

(d) transforming a host cell with said expression vectors; and

(e) isolating a $V_H$ and $V_L$ polypeptide encoded by said vector from said host cell.

27. The $V_H$ and $V_L$ polypeptide of claim 26 wherein said amplified $V_H$ and $V_L$ coding sequences are joined into separate expression vectors.

28. The $V_H$ and $V_L$ polypeptides of any of claims 22-27 wherein said $V_H$ and $V_L$ polypeptides comprise an Fab.